SIEMENS

UROSKOP D1
UROSKOP D2
UROSKOP D3

RX

Service
Unit/Generator

Repair Instructions

Removal and installation of the spotfilm device

Register 1

RLL5-310.091.01.01.02 English

Replaces: **06.93**

Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mitteilung ihres Inhalts nicht gestattet, soweit nicht ausdrücklich zugestanden. Zuwiderhandlungen verpflichten zu Schadenersatz. Alle Rechte für den Fall der Patenterteilung oder GM-Eintragung vorbehalten

Proprietry data, company, confidential. All rights reserved.
Confié à titre de secret d' entreprise. Tous droits resérvés.
Confiado como secreto industrial. Nos reservamos todos los derechos.

Copyright (C) Siemens AG 1993

2 Replacement of the spotfilm device

Contents

	Page	Rev.
Cover page	1	01
Contents, revision status	2	01
1 General		
Safety note	1-1	01
Documents required	1-1	01
Measuring instruments required	1-1	01
2 Removal of the spotfilm device	2-1	01
3 Removal and installation of the installation plate	3-1	01
7 Installation of the spotfilm device	4-1	01

Safety note

Note! ***When performing work and tests, observe the product-specific safety notes contained in this document and the general safety notes in register 2 of the TI folder.***

Tests and settings which need to be made under radiation are marked with the radiation symbol ☢ . During all procedures marked with this symbol, radiation protective precautions must be observed strictly.

Documents required

Operating instructions, UROSKOP D...

Wiring diagram

Measuring instruments required

Service tools

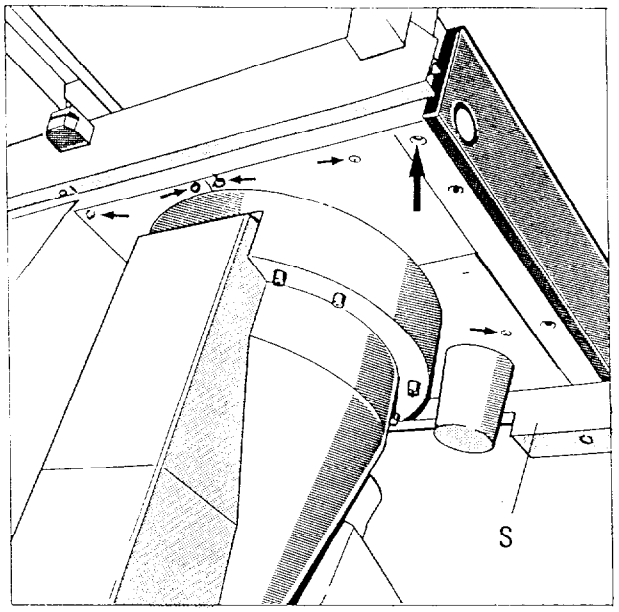

Fig. 1

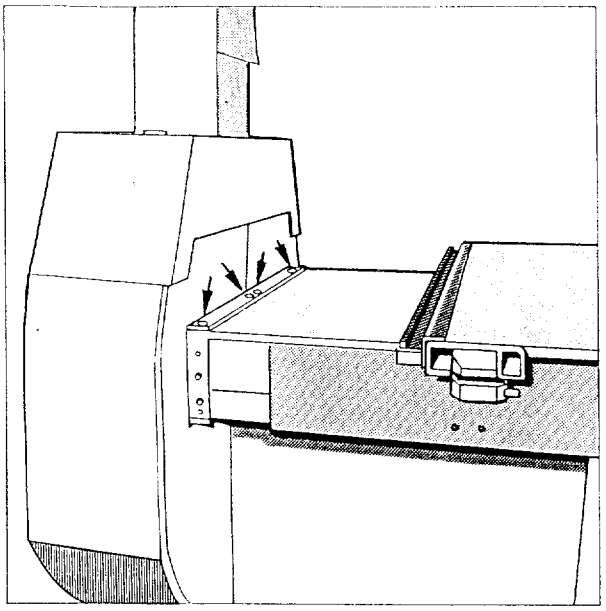

Fig. 2

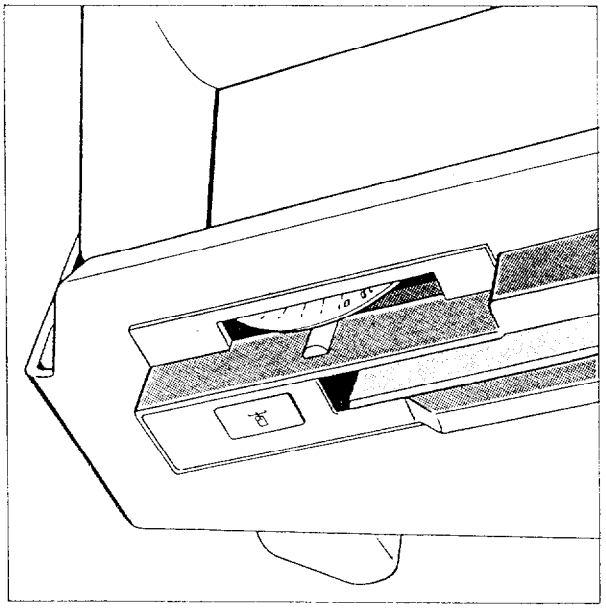

Fig. 3

- Unscrew the four-part cover of the unit support on the bottom side of the unit support (↗/Fig.1).
- Unscrew the M6 socket head cap screw under the Emergency Shutdown switch (↗/Fig.1).
- Completely detach the cover of the swivel frame or of the fixed frame (↘/Fig.2).
- Set the adjustment disk and the L/R lever to the center position (Fig.3).

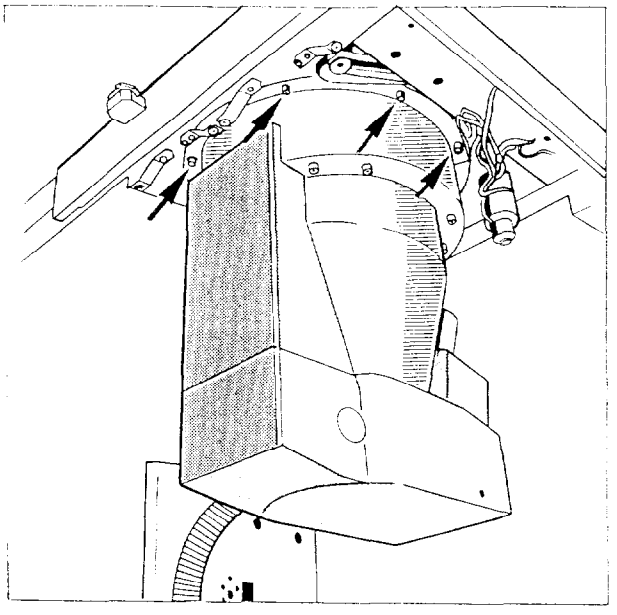

Fig. 4

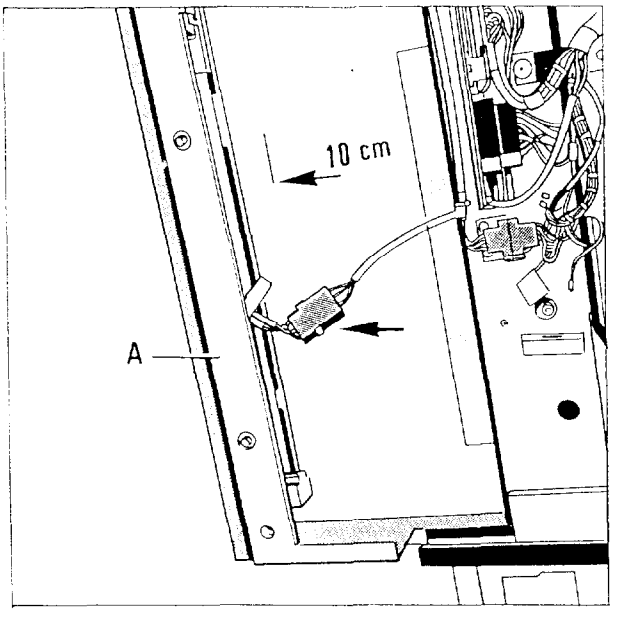

Fig. 5

- Support the weight of the image intensifier using a box that is 30 to 50 cm high and stable .
- Switch the system on and lower the unit until the I.I. rests on a prepared stable base.
- Switch the system off.
- Detach the I.I. (eight M8 socket head cap screws, ↗/Fig.4).
- Switch the system on and lift up the table carefully.
- Cover the I.I. screen to protect it from damage (e.g.: cassette).
- Tilt the unit to approx. 80°.
  (In this position it will later be easier to remove and install the spotfilm device).
- Move the table all the way to the front towards the operator.
- Switch the system off.
- Pull the cover (A/Fig.5) of the spotfilm device approx.10 cm out.
- Undo the plug connection N16.X1 (unloading and Emergency Shutdown switch) and jumper pin 1 and pin 2 at connector N16.X1 (↘/Fig.5) (safety circuit).
- Pull the spotfilm device cover all the way out and set it down laterally.

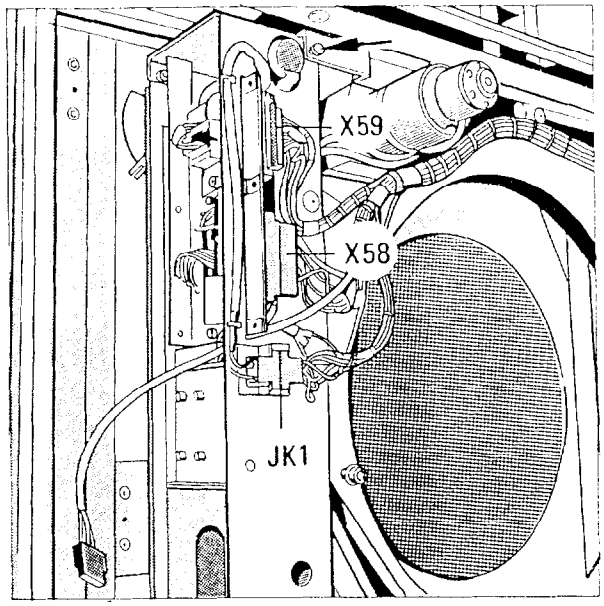

Fig. 6

- Switch the system on
- Load a small cassette (18 x 24) , ⇒ The clamping arms move together and the upper fastening screws of the spotfilm device become accessible
- Then actuate the **EMERGENCY SHUTDOWN** switch ⇒ The clamping arms remain in their present position so that the upper fastening screws of the spotfilm device remain accessible even after the system has been switched off.
- Switch the system off.
- Pull out the following plugs of the spotfilm device cable harness (Fig.6):
  N16.JK1,
  D50.X58,
  D50.X59.
- Unscrew the protective ground wire of the spotfilm device cable harness.
- Pull out the protective ground wire.
- Loosen the bottom fastening screw of the spotfilm device (ISK M6, ↙/Fig.7).

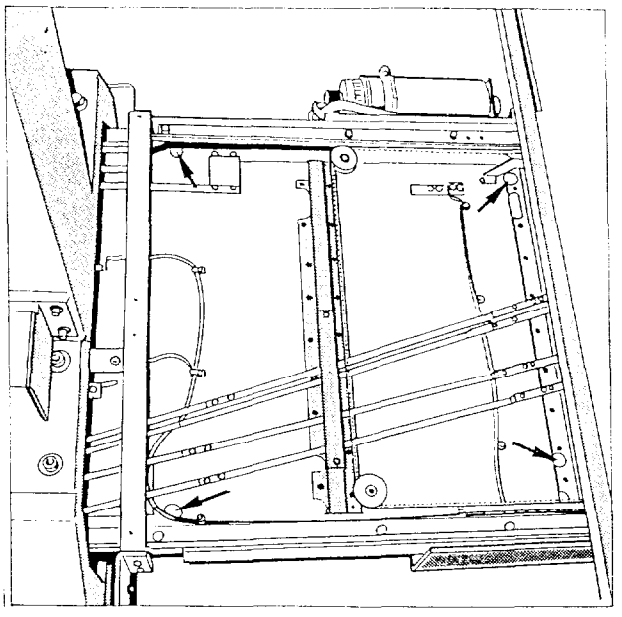

Fig. 8

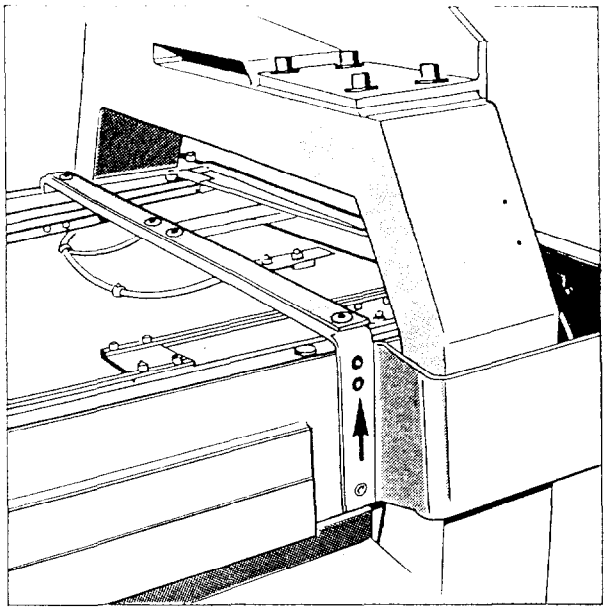

Fig. 9

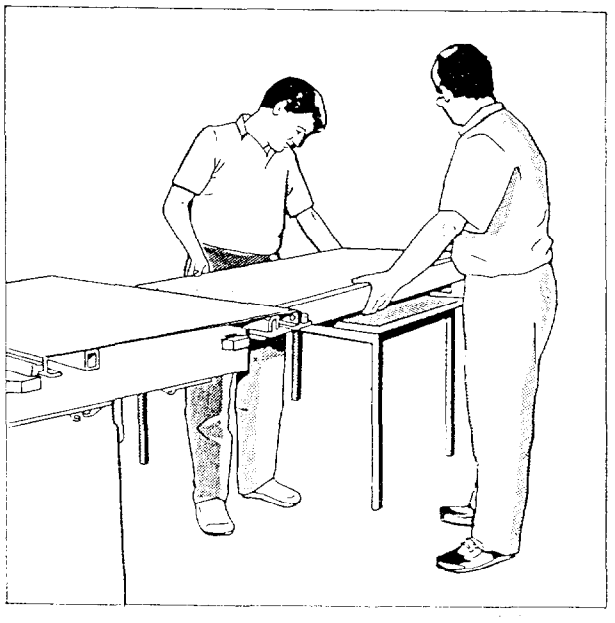

Fig. 10

- Remove the spotfilm device top fastening screws (4 x M6 Allen screws Fig.8).
- If not already done, set the adjustment disk and the lever to the center position (Fig.3).
- Unscrew the bracket across the spotfilm device (↑/Fig.9) at the rear on the right and press it upwards so that the adjustment disk can be passed through.
- Carefully pull out the spotfilm device towards the front (2 people required!); In doing so, press the lever (Fig.3) against the adjustment disk, if necessary.
- Set the spotfilm device down laterally on a suitable base or on its bottom side (not on the motor!) (Fig. 10).

Removal and installation of the installation plate 3-1

Removal

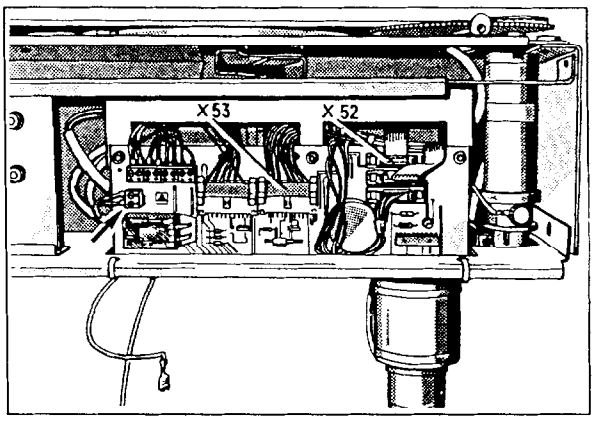

Fig.1

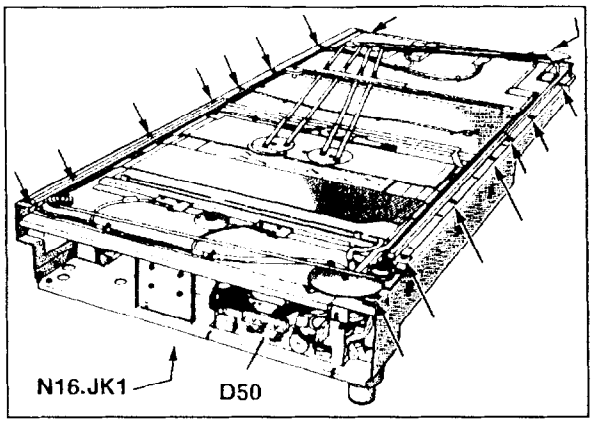

Fig.2

- Prepare the spotfilm device;
  The AM51 motor must face downwards
- Pull out connectors **X52** (encoder) and **X53** on PC board D50 (Fig.1).
- Disconnect the 24V cable of the AM52 collimator plate motor on PC board D50 (terminal X65) (↗/Fig.1).
- Unscrew the IONTOMAT connector N16.JK1 (Fig.2) on the bottom side of the spotfilm device and remove the IONTOMAT cable attached to the frame of the spotfilm device by means of a cable tie.
- Remove the securing screws of the installation plate:
  - 14 M4 Allen screws with washers (↘/Fig.2)
    One of the screws close to the AM52 motor is longer!
  - 3 M4 socket head cap screws (↘/Fig.2).
- Pull the previously disconnected cables out from behind PC board D50.
- Take off the installation plate;
  In doing, so, carefully pull the disconnected cables and the AM52 motor through the frame openings.

- Put the installation plate in place;
  In doing so, carefully feed the cables and the AM52 motor through the frame openings.

- Fasten the screws of the installation plate
  - 14 M4 Allen screws with washers (↘/Fig.3)
    One of the screws close to the AM52 motor is longer!
  - 3 socket head cap screws (↘/Fig.3).

- Tighten the IONTOMAT connector N16.JK1 (Fig.2) back in place and fasten the IONTOMAT cable to the frame of the spotfilm device by means of cable ties.

- Run the other cables behind PC board D50.

- Plug connectors **X52** (encoder) and **X53** on PC board D50 (Fig.2).

- Reconnect the 24V cable of the AM52 collimator plate motor on PC board D50 (terminal X65) (- = blue, + = brown, ↗/Fig.1).

- Set the adjustment disk and the L/R lever to the center position (Fig. 1).

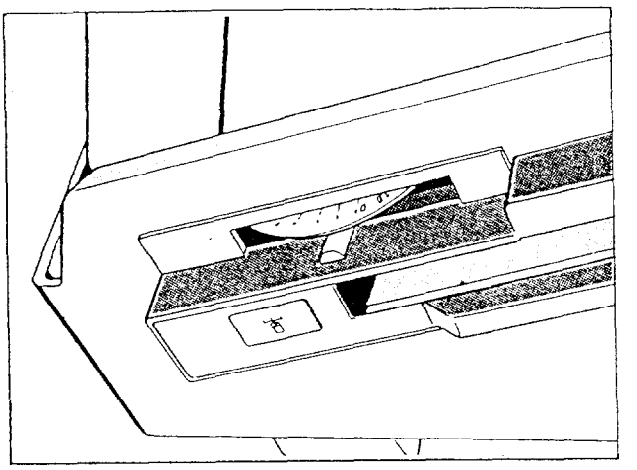

Fig. 1

- Push the bracket across the spotfilm device at the rear on the right upwards (↑ /Fig. 2) so that the adjustment disk can be passed through.

- Insert the spotfilm device into the unit from the front. Proceed very carefully and do not tilt the spotfilm device. This procedure requires 2 persons.

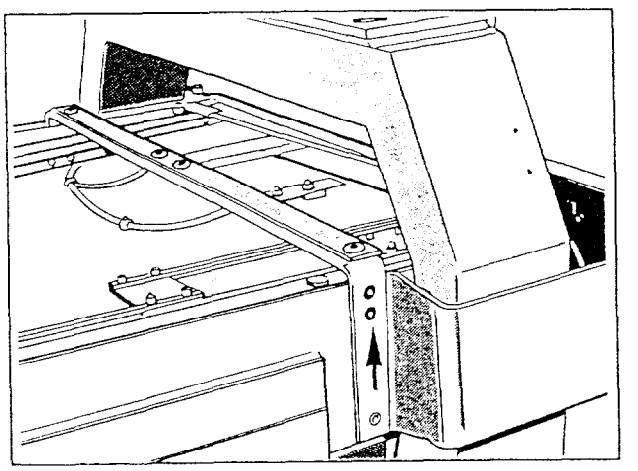

Fig. 2

- Connect the N16.JK1, D50.X58, D50.X59 connectors and the ground cable (Fig.3).

- Tighten the bottom fastening screw of the spotfilm device (M6 Allen screw, Fig.3).

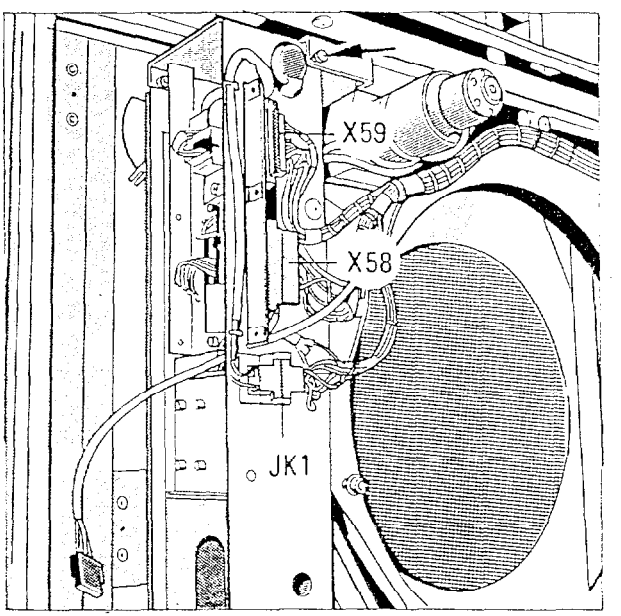

Fig. 3

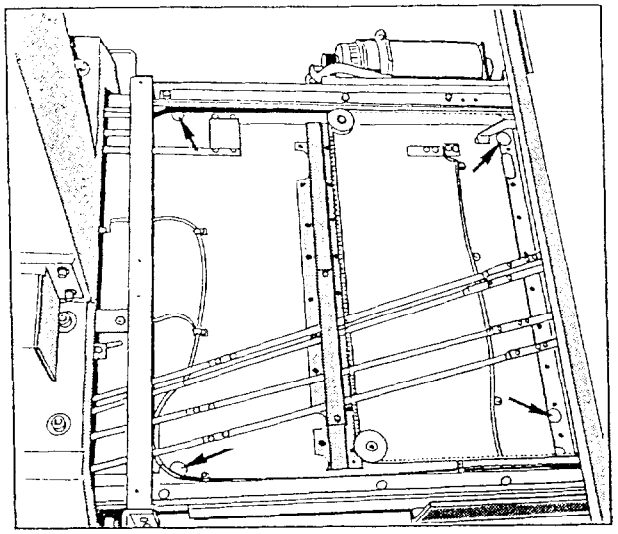

Fig. 4

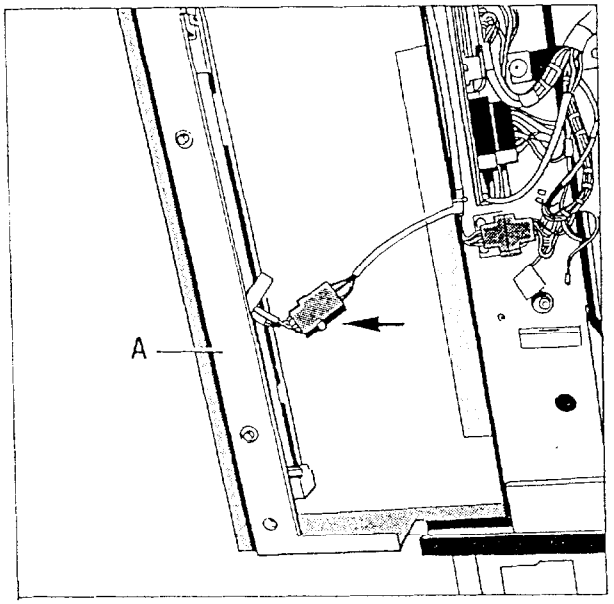

Fig. 5

- Switch the unit on
- Load a small cassette (18 x 24),
  ⇒ the clamping arms move together
- Then actuate the **EMERGENCY SHUTDOWN** switch
  ⇒ the upper four fastening screws of the spotfilm device become accessible.
- Switch the system off.
- Tighten the upper fastening screws of the spotfilm device (four M6 Allen screws, Fig.4).
- Insert the cover (A/Fig.5) of the spotfilm device up to approx. 10 cm short of the stop.
- Remove the jumper at connector N16.X1 (↘/Fig.5).
- Make the plug connection N16.X1 (to the unloading and Emergency Shutdown switch) (↘/Fig.5) .
- Completely insert the cover of the spotfilm device (A/Fig.5).
- Tighten the bracket (Fig.2) back on again on the right back side.
- Attach the covers of the swivel or the fixed frame.
- Take the protective plate off the I.I. input screen.
- Release the **Emergency SHUTDOWN Switch**.
- Switch the system on and tilt the unit into the 0° position.
- Carefully lower the unit until it rests on the I.I.
- Switch the system off.

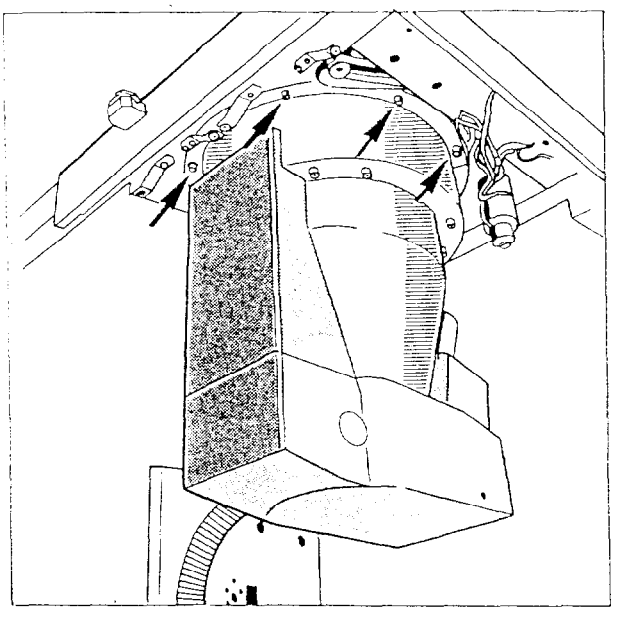

Fig. 7

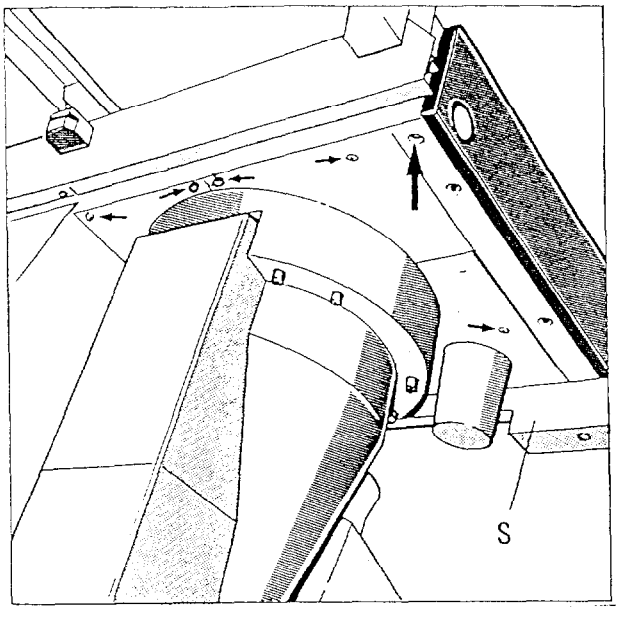

Fig. 8

- Attach the I.I. (using eight M8 socket head cap screws, Fig.7).
- Reinstall the four-part cover of the unit support on the bottom side of the unit (Fig.8).
- Tighten the M6 socket head cap screw under the Emergency Shutdown switch (↘/Fig.8).
- Switch the system on.
- Lift the table and remove the box supporting the weight of the image intensifier.
- Check the functions of the spotfilm device.
- Switch the system off.

TDRL2/Wendt
TDRL3/Sauter
TDRL1/Schlee
TDU 6/Steinbrink